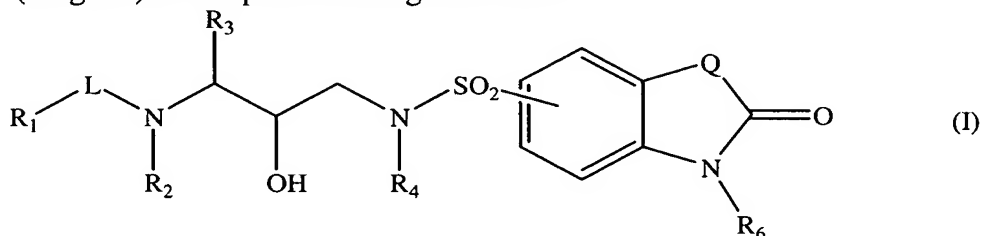


BT01 Rec'd PCT/PT 10/524451
10 FEB 2005

Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

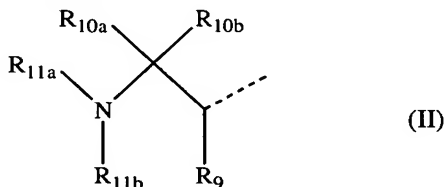
1. (Original) A compound having the formula



an *N*-oxide, salt, stereoisomeric form, racemic mixture, prodrug, ester or metabolite thereof, wherein

R_1 and R_8 are, each independently, hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, aryl C_{1-6} alkyl, C_{3-7} cycloalkyl, C_{3-7} cycloalkyl C_{1-6} alkyl, aryl, Het¹, Het¹ C_{1-6} alkyl, Het², Het² C_{1-6} alkyl;

R_1 may also be a radical of formula



wherein

R_9 , R_{10a} and R_{10b} are, each independently, hydrogen, C_{1-4} alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4} alkyl)aminocarbonyl, C_{3-7} cycloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl or C_{1-6} alkyl optionally substituted with aryl, Het¹, Het², C_{3-7} cycloalkyl, C_{1-4} alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4} alkyl)aminocarbonyl, aminosulfonyl, C_{1-4} alkylS(O)_i, hydroxy, cyano, halogen or amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-6} alkyl, aryl, aryl C_{1-4} alkyl, C_{3-7} cycloalkyl, C_{3-7} cycloalkyl C_{1-4} alkyl, Het¹, Het², Het¹ C_{1-4} alkyl and Het² C_{1-4} alkyl; wherein R_9 , R_{10a} and the carbon atoms to which they are attached may also form a C_{3-7} cycloalkyl radical; when L is -O- C_{1-6} alkanediyl-C(=O)- or -NR₈- C_{1-6} alkanediyl-C(=O)-, then R_9 may also be oxo;

R_{11a} is hydrogen, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-7} cycloalkyl, aryl, aminocarbonyl optionally mono- or disubstituted, amino C_{1-4} alkylcarbonyloxy optionally

mono- or disubstituted, C₁₋₄alkyloxycarbonyl, aryloxycarbonyl, Het¹oxycarbonyl, Het²oxycarbonyl, aryloxycarbonylC₁₋₄alkyl, arylC₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyl, C₃₋₇cycloalkylcarbonyl, C₃₋₇cycloalkylC₁₋₄alkyloxycarbonyl, C₃₋₇cycloalkylcarbonyloxy, carboxylC₁₋₄alkylcarbonyloxy, C₁₋₄alkylcarbonyloxy, arylC₁₋₄alkylcarbonyloxy, arylcarbonyloxy, aryloxycarbonyloxy, Het¹carbonyl, Het¹carbonyloxy, Het¹C₁₋₄alkyloxycarbonyl, Het²carbonyloxy, Het²C₁₋₄alkylcarbonyloxy, Het²C₁₋₄alkyloxycarbonyloxy or C₁₋₆alkyl optionally substituted with aryl, aryloxy, Het² or hydroxy; wherein the substituents on the amino groups are each independently selected from C₁₋₆alkyl, aryl, arylC₁₋₄alkyl, C₃₋₇cycloalkyl, C₃₋₇cycloalkylC₁₋₄alkyl, Het¹, Het², Het¹C₁₋₄alkyl and Het²C₁₋₄alkyl;

R_{11b} is hydrogen, C₃₋₇cycloalkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, aryl, Het¹, Het² or C₁₋₆alkyl optionally substituted with halogen, hydroxy, C₁₋₄alkylS(=O)_t, aryl, C₃₋₇cycloalkyl, Het¹, Het², amino optionally mono- or disubstituted where the substituents are each independently selected from C₁₋₄alkyl, aryl, arylC₁₋₄alkyl, C₃₋₇cycloalkyl, C₃₋₇cycloalkylC₁₋₄alkyl, Het¹, Het², Het¹C₁₋₄alkyl and Het²C₁₋₄alkyl;

wherein R_{11b} may be linked to the remainder of the molecule via a sulfonyl group;

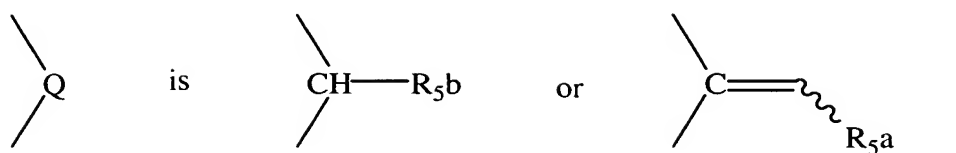
t is, each independently, zero, 1 or 2;

R₂ is hydrogen or C₁₋₆alkyl;

L is -C(=O)-, -O-C(=O)-, -NR₈-C(=O)-, -O-C₁₋₆alkanediyl-C(=O)-, -NR₈-C₁₋₆alkanediyl-C(=O)-, -S(=O)₂-, -O-S(=O)₂-, -NR₈-S(=O)₂, wherein either the C(=O) group or the S(=O)₂ group is attached to the NR₂ moiety; and wherein each independently the C₁₋₆alkanediyl moiety may be optionally substituted with hydroxy, aryl, Het¹ or Het²;

R₃ is C₁₋₆alkyl, aryl, C₃₋₇cycloalkyl, C₃₋₇cycloalkylC₁₋₄alkyl, or arylC₁₋₄alkyl;

R₄ is hydrogen, C₁₋₄alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, C₃₋₇cycloalkyl, C₂₋₆alkenyl, C₂₋₆alkynyl or C₁₋₆alkyl optionally substituted with one or more substituents each independently selected from aryl, Het¹, Het², C₃₋₇cycloalkyl, C₁₋₄alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl, C₁₋₄alkylS(=O)_t, hydroxy, cyano, halogen or amino optionally mono- or disubstituted where the substituents are each independently selected from C₁₋₄alkyl, aryl, arylC₁₋₄alkyl, C₃₋₇cycloalkyl, C₃₋₇cycloalkylC₁₋₄alkyl, Het¹, Het², Het¹C₁₋₄alkyl and Het²C₁₋₄alkyl;



R_{5a} and R_{5b} are, each independently, selected from hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-7} cycloalkyl, aryl, Het^1 , Het^2 ; wherein each of the substituents selected from C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl or C_{3-7} cycloalkyl, are optionally substituted on one or more carbon atoms with a substituent independently selected from the group consisting of amino, mono- or di(C_{1-4} alkyl)amino, hydroxy, carboxyl, oxo, mercapto, halogen, cyanogen, nitro, C_{1-4} alkyloxy, C_{1-4} alkylcarbonyl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkyloxycarbonyl, aryl, C_{3-7} cycloalkyl, Het^1 , Het^2 , C_{1-4} alkylcarbonyloxy, C_{1-4} alkyloxycarbonyl;

R_6 is hydrogen or C_{1-6} alkyl optionally substituted on one or more carbon atoms with one or more substituents independently selected from the group consisting of amino, mono- or di(C_{1-4} alkyl)amino, hydroxy, mercapto, oxo, cyanogen, nitro, halogen, carboxyl, C_{1-4} alkyloxy, C_{1-4} alkylcarbonyl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkyloxycarbonyl, C_{3-7} cycloalkyl, aryl, Het^1 , Het^2 ; wherein each C_{1-4} alkyl may optionally be substituted by amino, mono- or di(C_{1-4} alkyl)amino, hydroxy, mercapto, oxo, cyanogen, nitro, halogen, carboxyl.

2. (Original) A compound according to claim 1 wherein R_1 hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, aryl, C_{1-6} alkyl, C_{3-7} cycloalkyl, C_{3-7} cycloalkyl, C_{1-6} alkyl, aryl, Het^1 , Het^1 , C_{1-6} alkyl, Het^2 , Het^2 , C_{1-6} alkyl; wherein Het^1 is a monocyclic or bicyclic heterocycle having 5 to 10 ring members, which contains one or more heteroatom ring members each independently selected from nitrogen, oxygen or sulfur and which is optionally substituted on one or more carbon atoms.

3. (Currently Amended) A compound according to claim 1 or 2 wherein L is $-\text{O}-\text{C}_{1-6}$ alkanediyl- $\text{C}(=\text{O})-$.

4. (Currently Amended) A compound according to claim 1 ~~any one of claims 1 to 3~~ wherein

R_{5a} and R_{5b} are each independently selected from the group consisting of aryl, Het^1 , Het^2 or C_{1-6} alkyl optionally substituted on one or more atoms with a substituent independently selected from the group consisting of amino, hydroxy, carboxyl, oxo, sulfhydryl, halogen, nitro, cyanogen, C_{1-4} alkyl,

aminoC₁₋₄alkyl, hydroxyC₁₋₄alkyl, haloC₁₋₄alkyl, C₁₋₄alkyloxy, C₁₋₄alkylcarbonyl, C₁₋₄alkylcarbonyloxy, C₁₋₄alkyloxycarbonyl, C₁₋₄alkylcarbonyloxyC₁₋₄alkyl, C₁₋₄alkyloxycarbonylC₁₋₄alkyl, aryl, C₃₋₇cycloalkyl, Het¹ and Het²; and

R₆ is hydrogen.

5. (Currently Amended) A compound ~~according to claim 1 wherein the compound is~~
selected from the group consisting of:

10/524451
BT01 Rsc'd PCT/PTC 10 FEB 2005

(1-Benzyl-2-hydroxy-3-(isobutyl-[2-oxo-3-(1H-pyrrol-2-ylmethylene)-2,3-dihydro-1H-indole-5-sulfonyl]-amino)-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-(isobutyl-[3-(5-methyl-furan-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino)-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-(isobutyl-[3-(5-methyl-thiophen-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino)-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-(isobutyl-[3-(1-methyl-1H-pyrrol-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino)-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-3-([3-(2-ethyl-butylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino)-2-hydroxy-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

{1-Benzyl-2-hydroxy-3-[isobutyl-(3-isobutylidene-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl)-amino]-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

{1-Benzyl-3-[(3-furan-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino]-2-hydroxy-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-(isobutyl-[3-(4-methoxy-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino)-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-{isobutyl-[2-oxo-3-(4-pyridin-2-yl-benzylidene)-2,3-dihydro-1H-indole-5-sulfonyl]-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-{[3-(4-hydroxy-3,5-dimethyl-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-3-{[3-(4-dimethylamino-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-2-hydroxy-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-{[3-(1H-indol-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

Acetic acid 5-(5-{[3-(hexahydro-furo[2,3-b]furan-3-yloxy-carbonylamino)-2-hydroxy-4-phenyl-butyl]-isobutyl-sulfamoyl}-2-oxo-1,2-dihydro-indol-3-ylidenemethyl)-furan-2-ylmethyl ester 1

{1-Benzyl-3-[(3-benzylidene-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl)-isobutyl-amino]-2-hydroxy-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-3-{[3-(4-diethylamino-3-hydroxy-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-2-hydroxy-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester 1

(1-Benzyl-2-hydroxy-3-[[3-(2-hydroxy-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester i

(1-Benzyl-2-hydroxy-3-{isobutyl-[3-(2-methoxy-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester i

(1-Benzyl-2-hydroxy-3-[[3-(4-hydroxy-3-methoxy-benzylidene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-isobutyl-amino}-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester i

(1-Benzyl-3-{isobutyl-[3-(5-methylfuran-2-ylmethylene)-2-oxo-2,3-dihydro-1H-indole-5-sulfonyl]-amino}-2-phosphonooxy-propyl)-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester and

4-(5-[[3-(Hexahydro-furo[2,3-b]furan-3-ylloxycarbonylamino)-2-hydroxy-4-phenyl-butyl]-isobutyl-sulfamoyl]-2-oxo-1,2-dihydro-indol-3-ylidenemethyl)-benzoic acid .

a *N*-oxide or a salt thereof, or a stereoisomeric form thereof.

6. (Currently Amended) A pharmaceutical composition, comprising an effective amount of at least one compound as claimed in claim 1 ~~any one of claims 1 to 5~~, and a pharmaceutically tolerable excipient.
7. (Currently Amended) A method of inhibiting a protease of a multi-drug resistant retrovirus in a mammal infected with said retrovirus, comprising administering a protease inhibiting amount of a compound according to claim 1 ~~any one of claims 1 to 5~~ to said mammal in need thereof.
8. (Currently Amended) A method of treating or combating infection or disease associated with multi-drug resistant retrovirus infection in a mammal, comprising

- administering an effective amount of at least one compound according to claim 1 ~~any one of claims 1 to 5~~ to said mammal.
9. (Currently Amended) A method of inhibiting multi-drug resistant retroviral replication, comprising contacting a retrovirus with an effective amount of at least one compound according to claim 1 ~~any one of claims 1 to 5~~.
 10. (Cancelled).
 11. (Cancelled).
 12. (New) A pharmaceutical composition, comprising an effective amount of at least one compound as claimed in claim 2 and a pharmaceutically tolerable excipient.
 13. (New) A method of inhibiting a protease of a multi-drug resistant retrovirus in a mammal infected with said retrovirus, comprising administering a protease inhibiting amount of a compound according to claim 2 to said mammal in need thereof.
 14. (New) A method of treating or combating infection or disease associated with multi-drug resistant retrovirus infection in a mammal, comprising administering an effective amount of at least one compound according to claim 2 to said mammal.
 15. (New) A method of inhibiting multi-drug resistant retroviral replication, comprising contacting a retrovirus with an effective amount of at least one compound according to claim 2.
 16. (New) A pharmaceutical composition, comprising an effective amount of at least one compound as claimed in claim 5 and a pharmaceutically tolerable excipient.
 17. (New) A method of inhibiting a protease of a multi-drug resistant retrovirus in a mammal infected with said retrovirus, comprising administering a protease

inhibiting amount of a compound according to claim 5 to said mammal in need thereof.

18. (New) A method of treating or combating infection or disease associated with multi-drug resistant retrovirus infection in a mammal, comprising administering an effective amount of at least one compound according to claim 5 to said mammal.
19. (New) A method of inhibiting multi-drug resistant retroviral replication, comprising contacting a retrovirus with an effective amount of at least one compound according to claim 5.